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Signature	<i>DJ Macedo</i>	Date	10/6/2000

<b>SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. §1.111</b>  Address to: Commissioner for Patents Washington, D.C. 20231	Attorney Docket	10981620-1
	First Named Inventor	Glenda C. DELENSTARR
	Application Number	09/398,399
	Filing Date	September 17, 1999
	Group Art Unit	1655
	Examiner Name	B. Sisson
	Title	TECHNIQUES FOR ASSESSING NONSPECIFIC BINDING OF NUCLEIC ACIDS TO SURFACES

Sir:

In addition to the amendments made in the Applicant's response filed August 28, 2000, the Examiner is respectfully requested to enter the following amendments:

**AMENDMENTS**

IN THE CLAIMS

Cancel Claims 1-4.

Please add the following new claims:

--40. A hybridization assay, said assay comprising:

- (a) providing a sample of target nucleic acids;
- (b) contacting said sample under stringent hybridization conditions with a collection of substrate bound nucleic acid features comprising:
  - (i) hybridization probes, and
  - (ii) background features;
- (c) removing unhybridized target nucleic acids from said substrate;
- (d) detecting an observed signal for at least one resultant detectable hybridization probe feature of said substrate;

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- (e) detecting a background feature signal for each resultant detectable background feature and determining a background signal from at least one of said detected background feature signals; and
  - (f) subtracting the background signal from the observed signal for each hybridization probe feature.

41. ~~The assay of claim 40 wherein said substrate is an array surface.~~

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42. ~~The assay of claim 40, wherein said target nucleic acids are labeled after said contacting step.~~

43. The assay of claim 40, wherein the background features comprise probes selected from the group consisting of empirically observed inactive probes, probes forming stable intramolecular structures, short probes, reverse polarity nucleotide analogs, abasic phosphodiesteres or modified nucleotidic units.

44. A hybridization assay, said assay comprising:

- 10/18*
- (a) providing a sample of labeled target nucleic acids;
  - (b) contacting said sample under stringent hybridization conditions with a collection of substrate bound nucleic acid features comprising:
    - (i) hybridization probes, and
    - (ii) background features;
  - (c) removing unhybridized target nucleic acids from said substrate;
  - (d) detecting an observed signal for each resultant detectable hybridization probe feature of said substrate;
  - (e) detecting a background feature signal for each resultant detectable background feature and determining a background signal from said detected background feature signals; and
  - (f) subtracting the background signal from the observed signal for each hybridization probe feature.

45. ~~The assay of claim 44 wherein said substrate is an array surface.~~

46. The assay of claim 44, wherein said target nucleic acids are directly labeled.

47. The assay of claim 44, wherein said target nucleic acids are indirectly labeled.

48. The assay of claim 44, wherein said signals are detected by colorimetric, fluorimetric, chemiluminescent or bioluminescent techniques.

49. The assay of claim 44, wherein the background features comprise probes selected from the group consisting of empirically observed inactive probes, probes forming stable intramolecular structures, short probes, reverse polarity nucleotide analogs, abasic phosphodiester or modified nucleotidic units.--

#### REMARKS

New claims 40 to 43 differ from the claims now pending in that they provide for labeling of the target nucleic acids after hybridization to the array. Support for these claims can be found in the specification at page 4, lines 7-21. New claims 44 to 49 find support in the originally filed claims. As such, entry of these newly introduced claims is respectfully requested.

If the Examiner finds that a Telephone Conference would expedite prosecution of this application, he is invited to contact the Mr. Gordon Stewart at (650) 485 2386. The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§1.16 and 1.17 that may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-0815.

Respectfully submitted,

Date: 10.6.00

By: [Signature]  
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